

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of retrieving channel characteristics of a discrete multi-tone communication channel having a plurality of bins, comprising the steps of:
 - determining and storing on a per bin basis channel frequency response and noise measurements at a first end of the channel at initialization;
 - determining and storing a signal-to-noise measurement on a per bin basis at the first end at show time;
 - retrieving the stored channel frequency response, noise and signal-to-noise measurements at a second end of the channel; and
 - analyzing time dependent changes in cross talk levels and line attenuation at the second end of the channel.
 - ~~receiving data at the second end at a rate in dependence upon the retrieved measurements.~~
 2. (previously presented) A method as claimed in claim 1 wherein the first end is a central office (CO) end, and the second end is a customer premise equipment (CPE) end.
 3. (original) A method as claimed in claim 1 wherein the channel is asymmetrical.
 4. (previously presented) A method as claimed in claim 1 wherein the first end is a customer premise equipment (CPE) end, and the second end is a central office (CO) end.
 5. (original) A method as claimed in claim 1 wherein the channel is non-overlapping.
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6. (previously presented) A method as claimed in claim 1 wherein the channel is an Asymmetric Digital Subscriber Line (ADSL) channel.

7. (previously presented) A method as claimed in claim 1 wherein the channel is a very high bit-rate DSL (VDSL) channel.

8. -9. (cancelled)

10. (currently amended) An apparatus for retrieving channel characteristics of a discrete multi-tone communication channel having a plurality of bins, the apparatus comprising:

a first circuit for determining and storing on a per bin basis channel frequency response and noise measurements at a first end of the channel ~~at initialization;~~

a second circuit for determining and storing a signal-to-noise measurement on a per bin basis at the first end ~~at show time;~~

a first receiver for retrieving the stored frequency response, noise and signal-to-noise measurements at a second end of the channel; and

an analyzer at the second end for analyzing time dependent changes in cross talk levels and line attenuation.

~~a second receiver for receiving data at a rate in dependence upon the retrieved measurements at the second end.~~

11. (previously presented) An apparatus as claimed in claim 10 wherein the first end is a central office (CO) end, and the second end is a customer premise equipment (CPE) end.

12. (original) An apparatus as claimed in claim 10 wherein the channel is asymmetrical.

13. (previously presented) An apparatus as claimed in claim 10 wherein the first end is a customer premise equipment (CPE) end, and the second end is a central office (CO) end .

14. (original) An apparatus as claimed in claim 10 wherein the channel is non-overlapping.

15. (previously presented) An apparatus as claimed in claim 10 wherein the channel is an Asymmetric Digital Subscriber Line (ADSL) channel.

16. (previously presented) An apparatus as claimed in claim 10 wherein the channel is a very high bit-rate DSL (VDSL) channel.

17. -30. (cancelled)

31. (currently amended) A computer readable medium containing program instructions for retrieving channel characteristics of a discrete multi-tone communication channel having a plurality of bins, comprising the steps of:

- determining and storing on a per bin basis channel frequency response and noise measurements at a first end of the channel at initialization;
- determining and storing a signal-to-noise measurement, on a per bin basis at the first end at show time;
- retrieving the stored channel frequency response, noise and signal-to-noise measurements at a second end of the channel; and
- analyzing time dependent changes in cross talk levels and line attenuation at the second end of the channel.

~~receiving data at the second end at a rate in dependence upon the retrieved measurement.~~

32. (previously presented) A computer readable medium as claimed in claim 31 wherein the first end is a central office (CO) end, and the second end is a customer premise equipment (CPE) end.

33. (previously presented) A computer readable medium as claimed in claim 31 wherein the channel is asymmetrical.

34. (new) A computer readable medium as claimed in claim 31 wherein the first end is a customer premise equipment (CPE) end, and the second end is a central office (CO) end.

35. (previously presented) A computer readable medium as claimed in claim 31 wherein the channel is non-overlapping.

36. (previously presented) A computer readable medium as claimed in claim 31 wherein the channel is an Asymmetric Digital Subscriber Line (ADSL) channel.

37. (previously presented) A computer readable medium as claimed in claim 31 wherein the channel is a very high bit-rate DSL (VDSL) channel.
